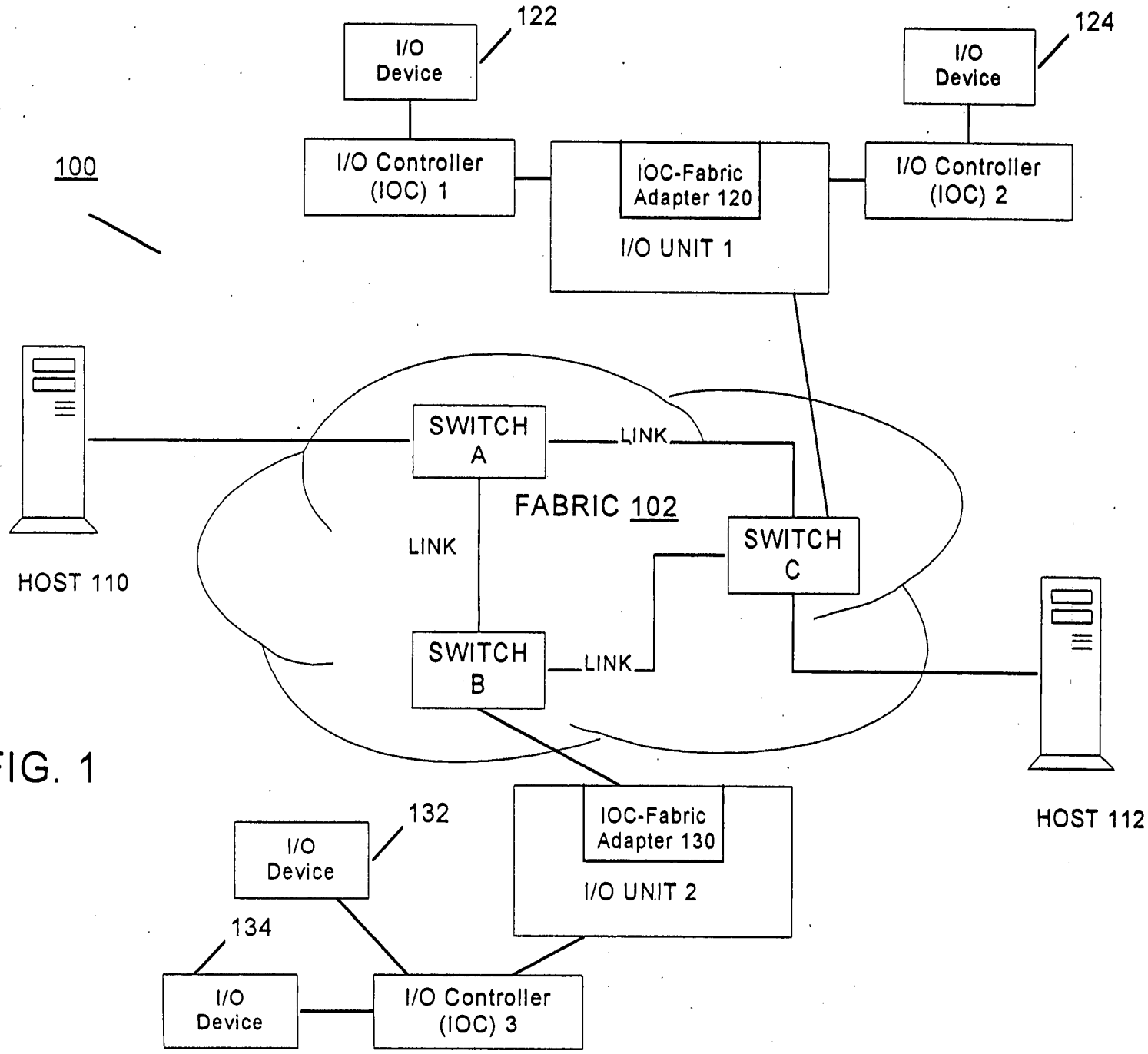

I/O Device
122
I/O Device
124
100
I/O Controller (IOC) 1
IOC-Fabric Adapter 120
I/O UNIT 1
I/O Controller (IOC) 2
SWITCH A
LINK
FABRIC 102
LINK
SWITCH C
HOST 110
SWITCH B
LINK
HOST 112
IOC-Fabric Adapter 130
I/O UNIT 2
I/O Device
132
134
I/O Device
I/O Controller (IOC) 3

FIG. 1

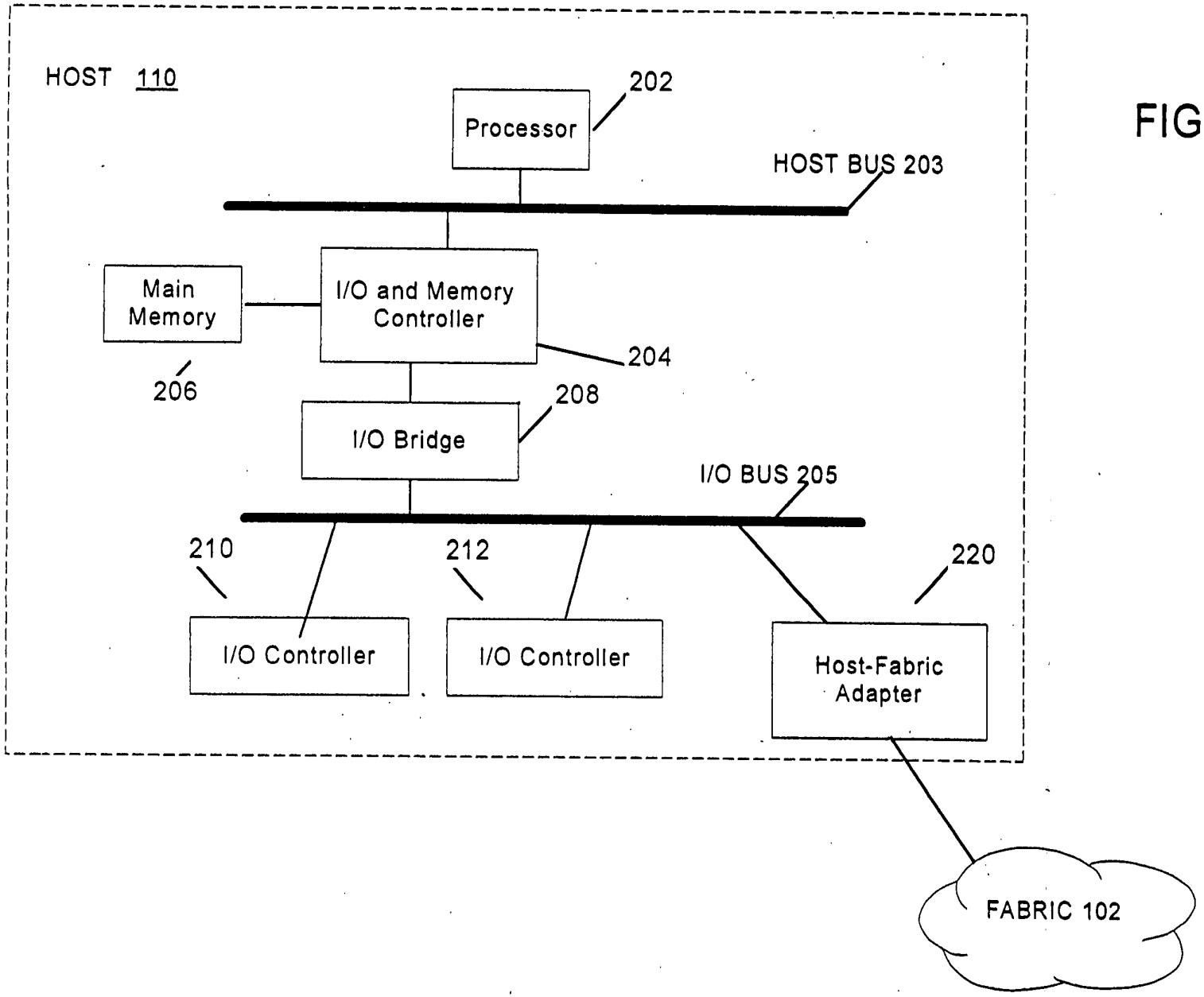


FIG. 2

09666190 . 121799

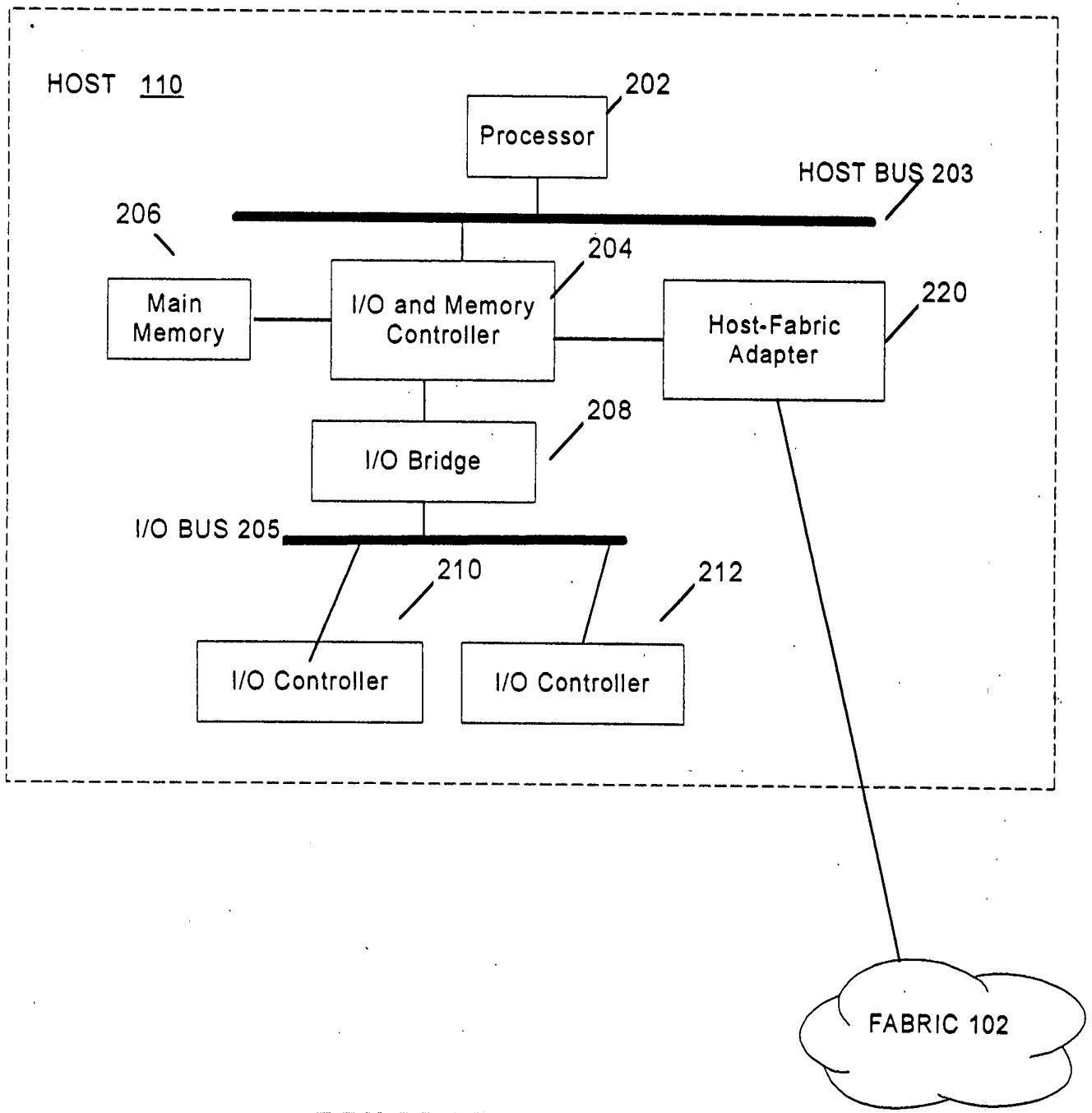
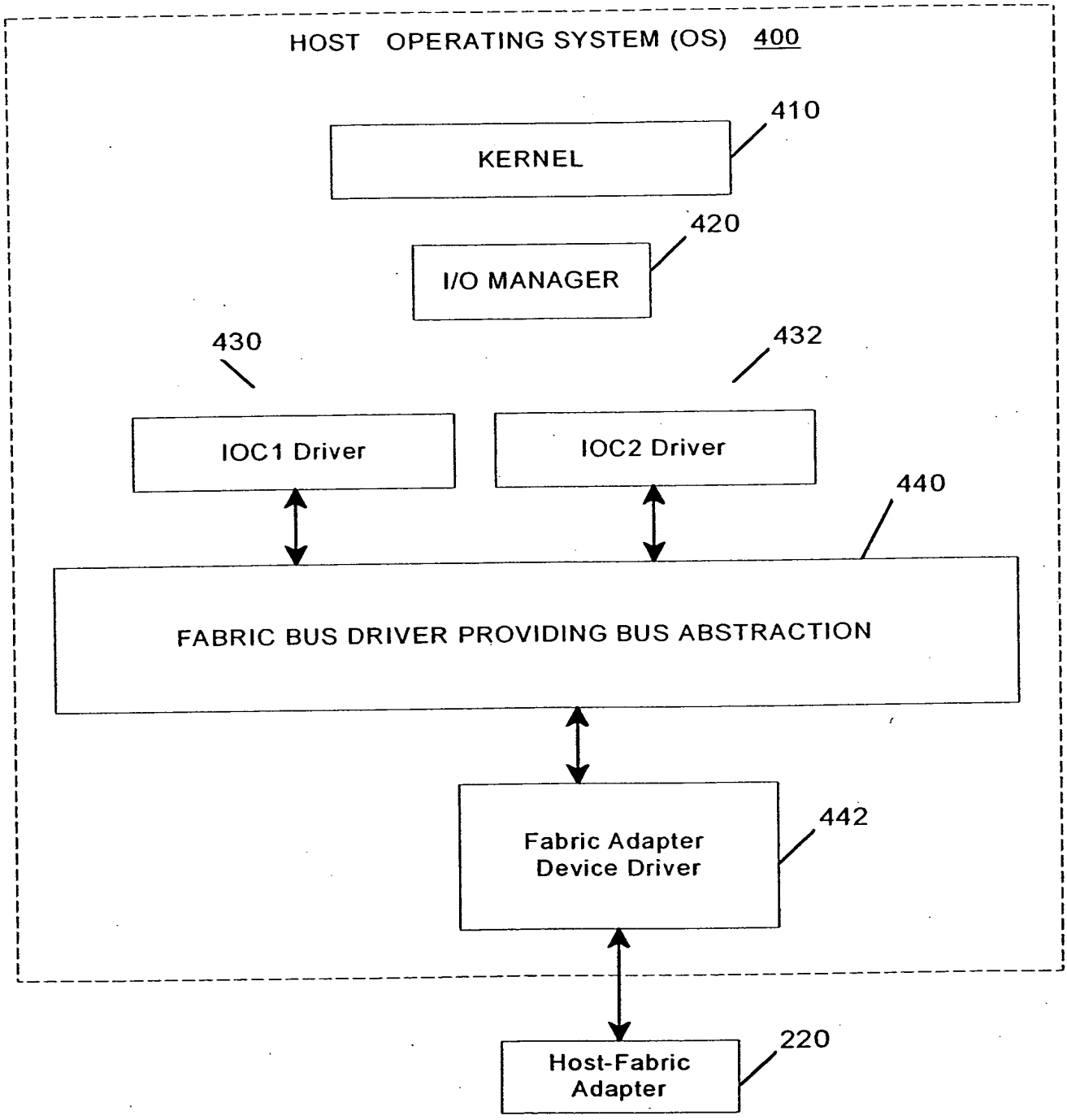


FIG. 3

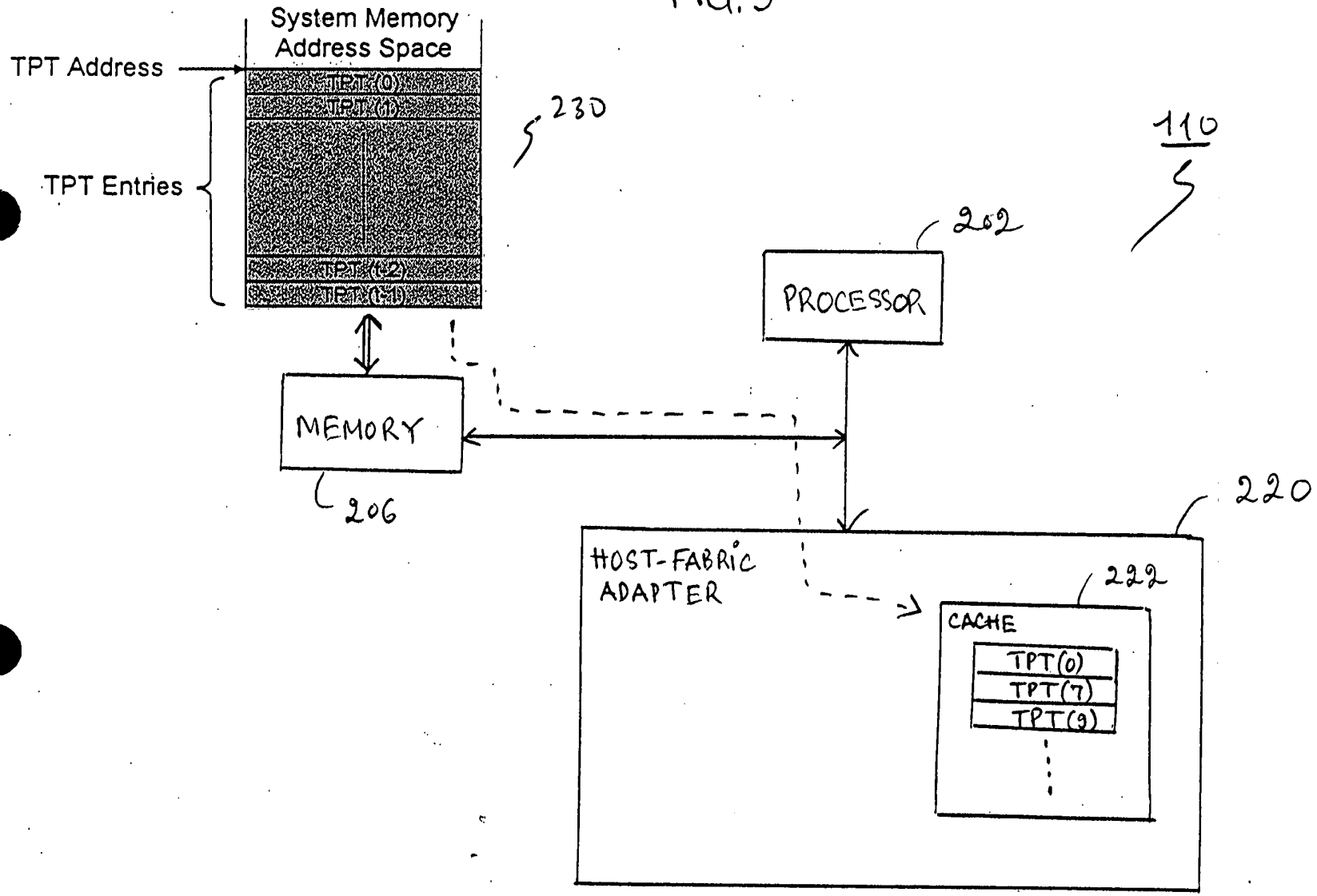
09466180 .121700



EXAMPLE SOFTWARE DRIVER STACKS FOR HOST HAVING FABRIC-ATTACHED I/O

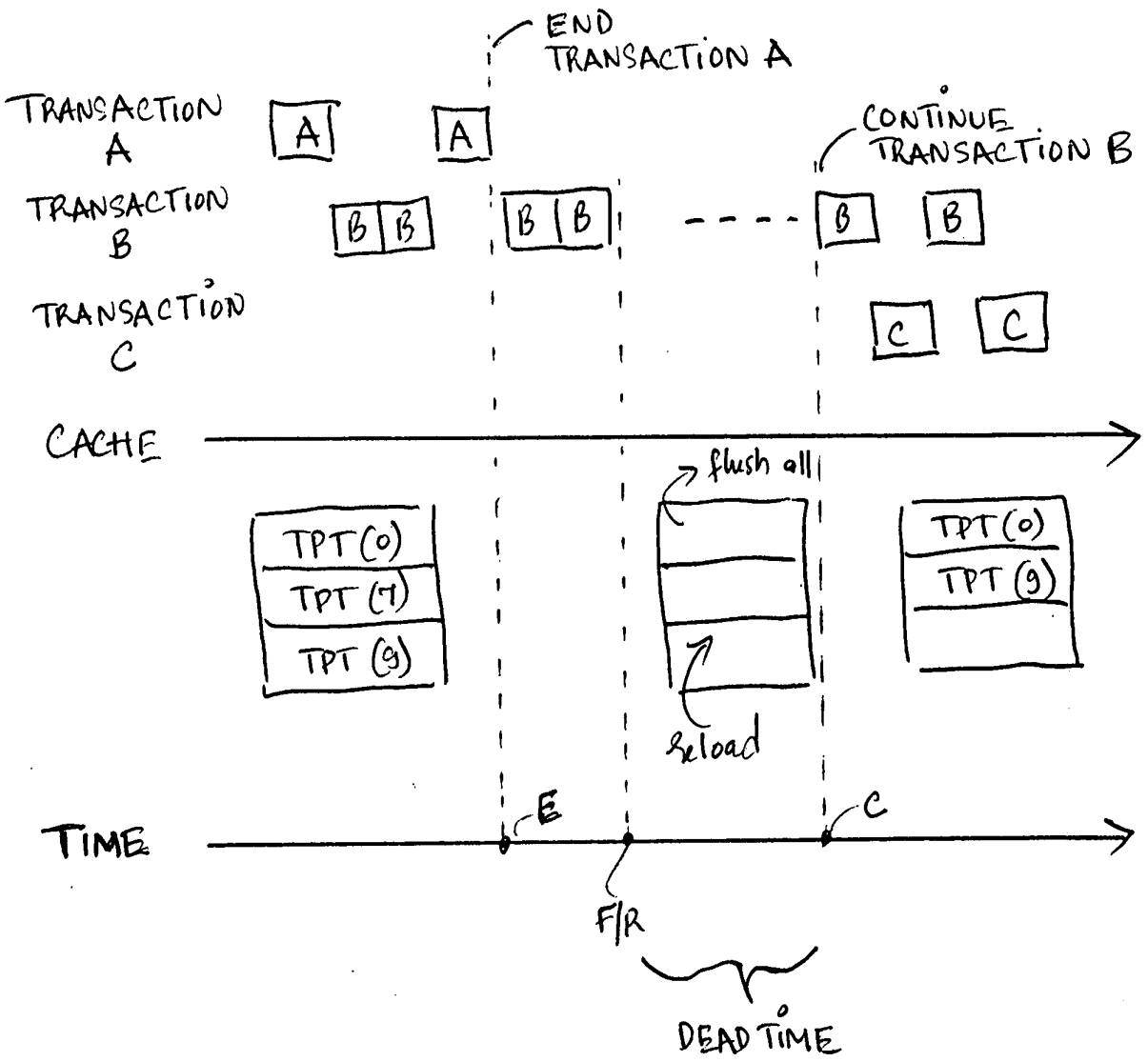
FIG. 4

FIG. 5



09456190 .121799

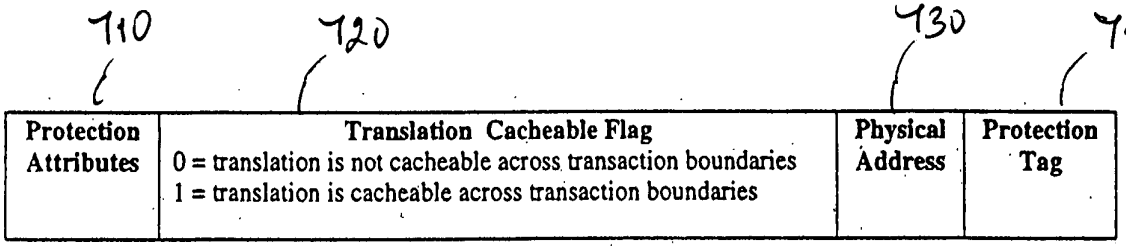
FIG. 6



0946180 . 121799

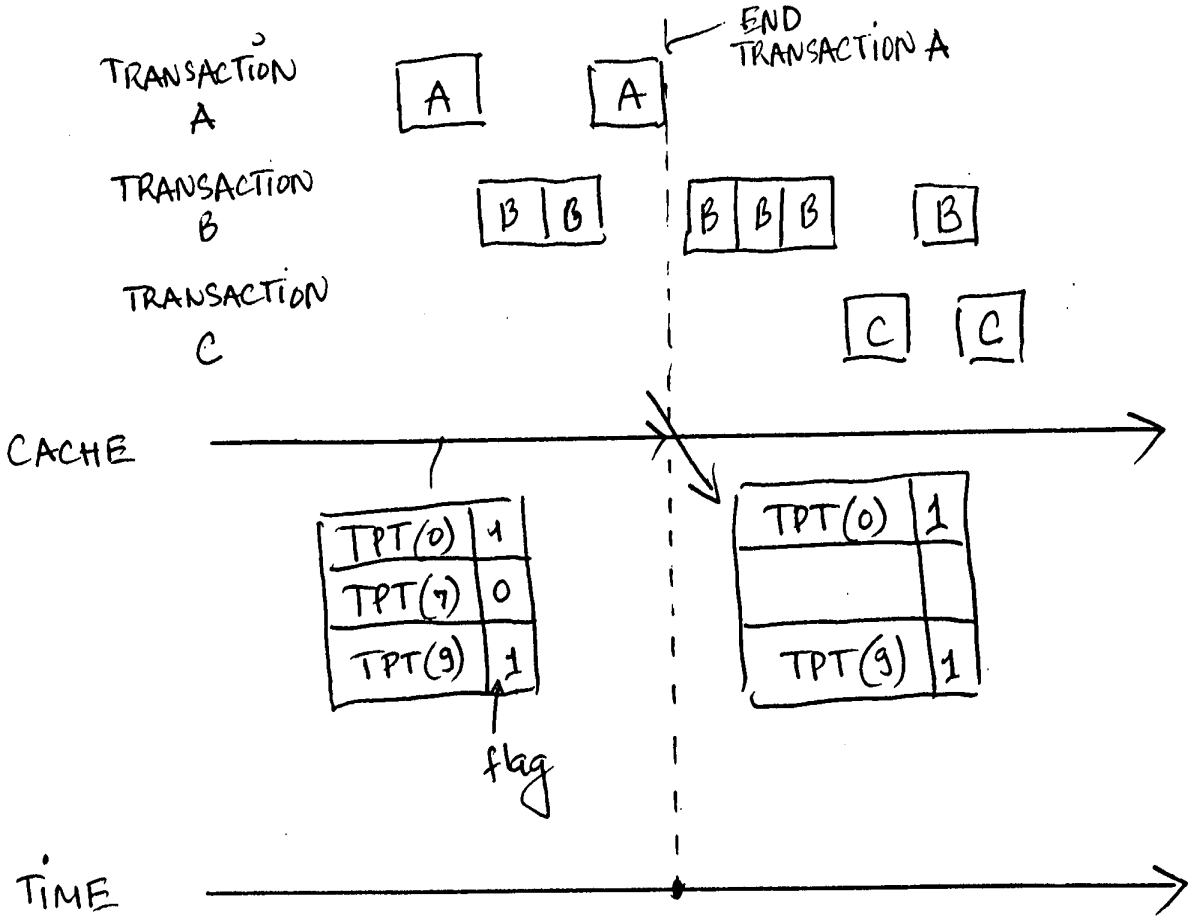
FIG. 7

700



09465180 . 121799

FIG. 8



0946180 . 121799

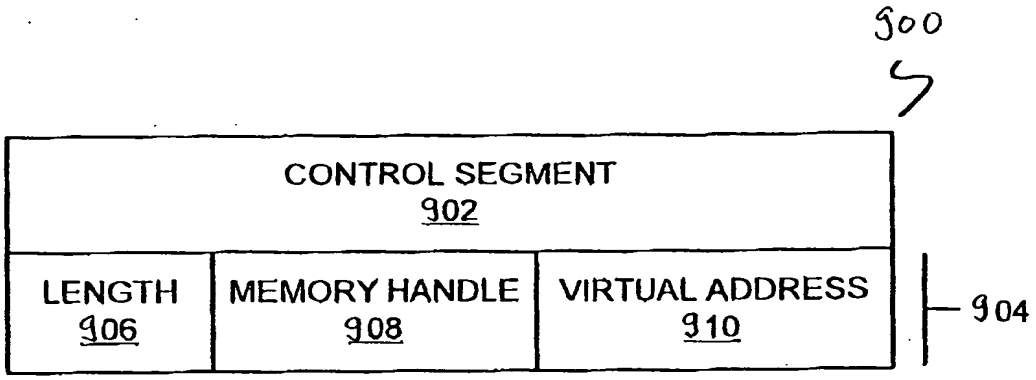

900
CONTROL SEGMENT
902
LENGTH
906
MEMORY HANDLE
908
VIRTUAL ADDRESS
910
904

FIG. 9A

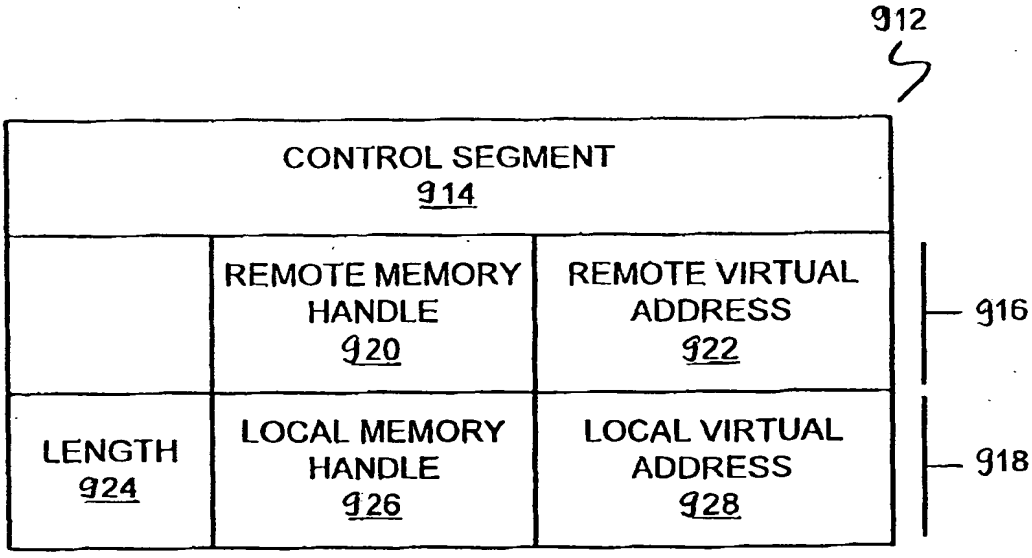

912
CONTROL SEGMENT
914
REMOTE MEMORY HANDLE
920
REMOTE VIRTUAL ADDRESS
922
916
LENGTH
924
LOCAL MEMORY HANDLE
926
LOCAL VIRTUAL ADDRESS
928
918

FIG. 9B

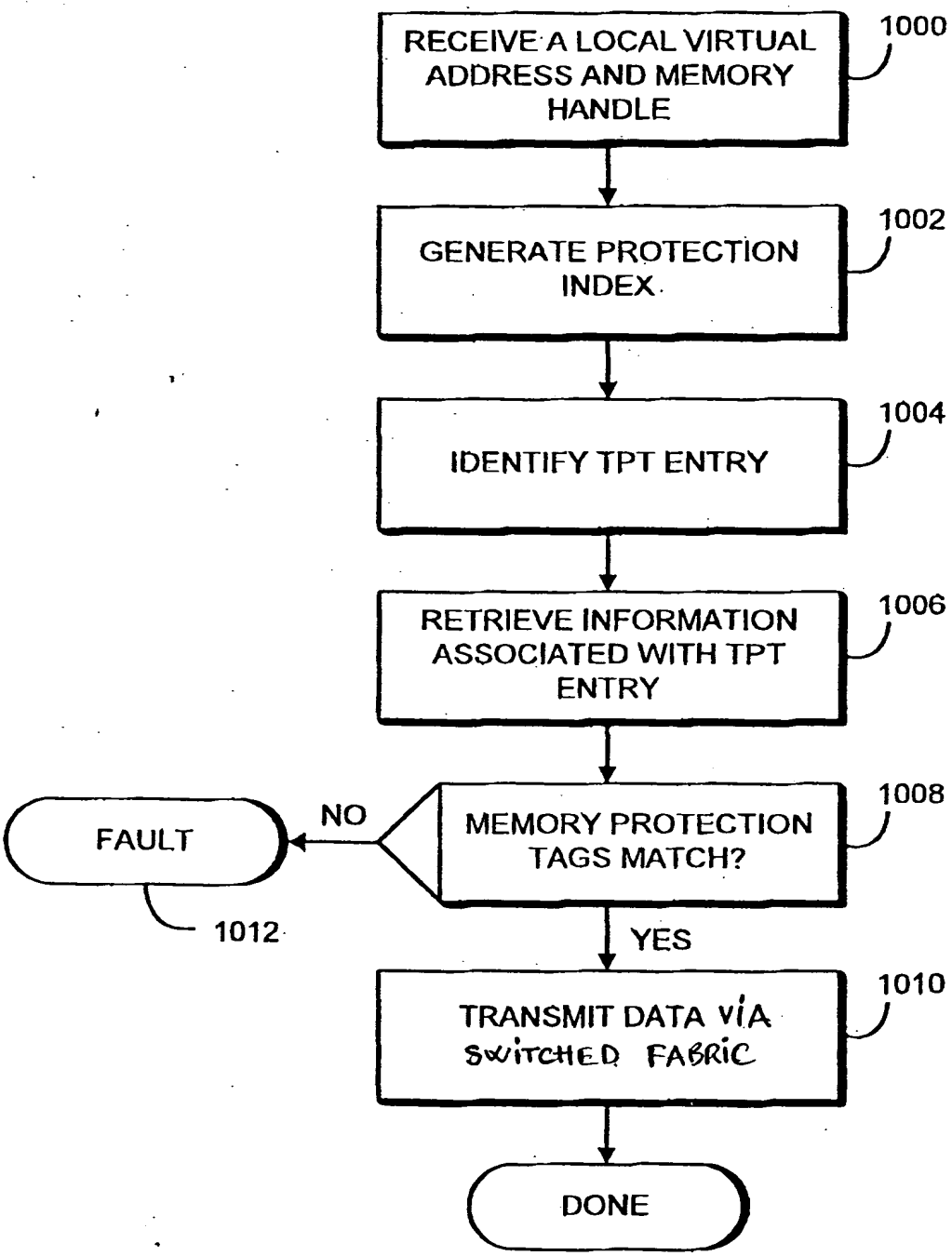

RECEIVE A LOCAL VIRTUAL ADDRESS AND MEMORY HANDLE
1000
GENERATE PROTECTION INDEX
1002
IDENTIFY TPT ENTRY
1004
RETRIEVE INFORMATION ASSOCIATED WITH TPT ENTRY
1006
MEMORY PROTECTION TAGS MATCH?
1008
NO
FAULT
1012
YES
TRANSMIT DATA VIA SWITCHED FABRIC
1010
DONE

FIG. 10

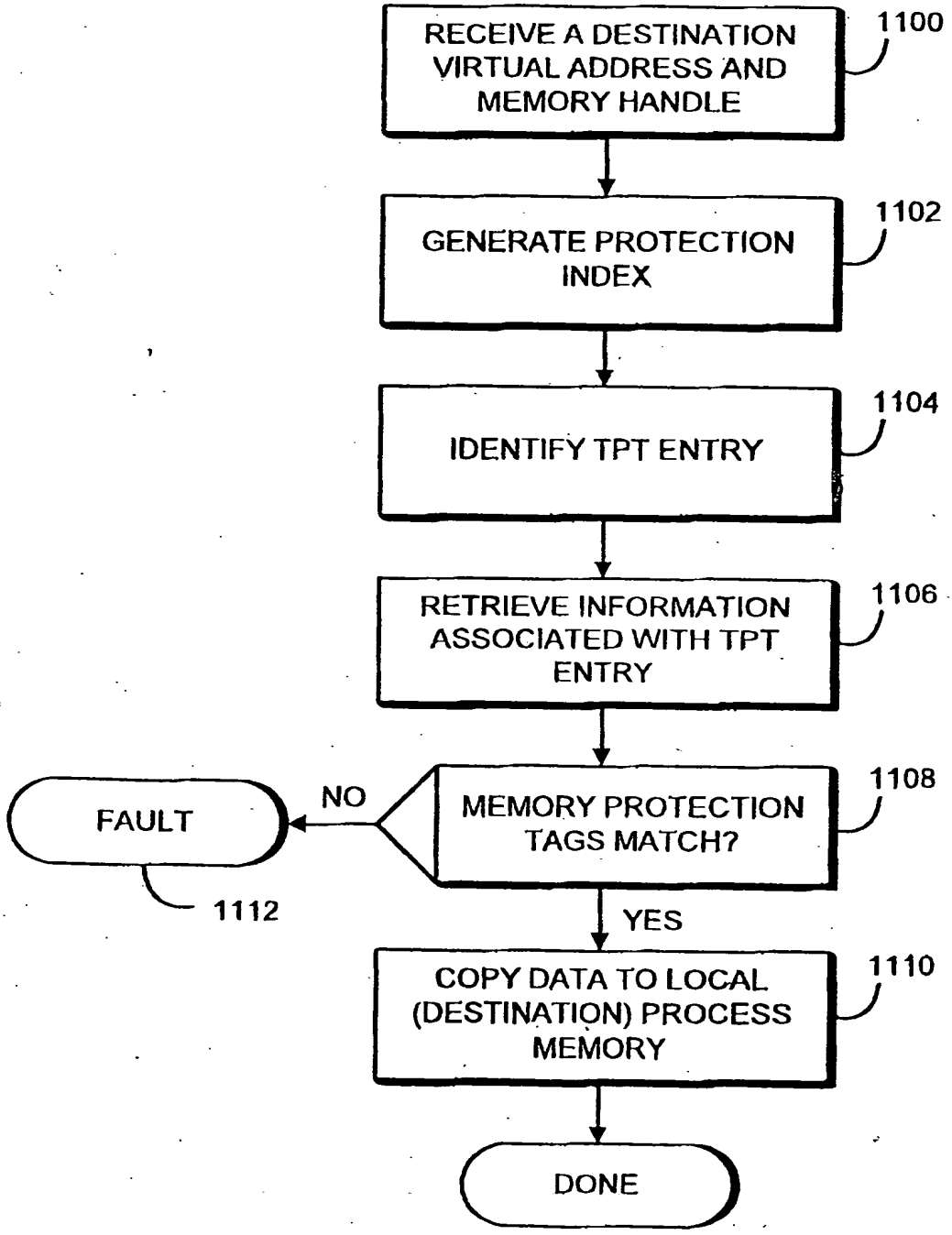

RECEIVE A DESTINATION VIRTUAL ADDRESS AND MEMORY HANDLE
1100
GENERATE PROTECTION INDEX
1102
IDENTIFY TPT ENTRY
1104
RETRIEVE INFORMATION ASSOCIATED WITH TPT ENTRY
1106
MEMORY PROTECTION TAGS MATCH?
1108
NO
FAULT
1112
YES
COPY DATA TO LOCAL (DESTINATION) PROCESS MEMORY
1110
DONE

FIG. 11